

# **EDEN**

**THE LEADER IN BASS AMPLIFICATION.**

## **DC210XLT Metro**

**Combo Bass Guitar  
Amplifier  
Operation Manual**

# **Never Compromise™**

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# **Combo Bass Guitar Amplifier**

## **DC210XLT Metro**

### **OPERATION MANUAL**

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#### **FOREWORD**

Congratulations on the purchase of your new Eden DC210XLT Metro Combo Amplifier System. All of us at Eden are totally committed to providing you with the very best bass guitar systems in their class. Our goals are to offer you the outstanding performance quality of a top-notch, professional bass amplification system at a reasonable price point, and to make World Tour amplifiers the most musical and reliable Bass amplifiers available.

This manual will cover domestic and international versions of the DC210XLT Combo Amplifier.

The DC210XLT delivers 300 watts RMS output @ 8 Ohms, 550 watts @ 4 Ohms and 750 watts @ 2 Ohms, with +3dB of headroom. This amplifier features dual preamp channels and a thermostatically controlled, active cooling system with built-in thermal safeties.

You have purchased what we feel is one of the finest bass amplifiers in the world. The tube pre-amplifier section on Channel 2, with its familiar Eden Enhance control and powerful 5-way, semi-parametric tone control system is coupled to a gentle auto-compression circuit, allowing you to achieve a wide array of sounds. This compact amplifier design houses modular circuits made with superior components and designed for years of trouble-free service.

The Eden World Tour products group is the result of our quest for ultimate bass tone and maximum reliability. Your amplifier was designed, engineered and manufactured equivalent to aircraft vibration standards and housed in a one-piece aluminum case with steel top to ensure maximum reliability. The modular design allows quick repair in the field should such a need arise.

The Eden line of World Tour amplifiers is the result of our research and development in combining high performance and compact size. Just as a skilled craftsman needs good quality tools that won't let him down on the job, so does a good musician. We hope you enjoy the tool we've created for you. Have fun; play low!

Please read this manual in its entirety before operating your new amplifier. Failure to do so could result in misuse or damage. We've taken the time to write it, which was a lot longer than the time it will take for you to read it. Help us help you by taking a few moments to learn how to properly use your new amp. You'll be glad you did!

## **CAUTION!**

*Your ears are your most important piece of equipment. Unfortunately, they cannot be replaced as easily as your other gear. Please take the following warning seriously.*

*This product, when used in combination with loudspeakers and/or additional amplification may be capable of producing sound levels that could cause permanent hearing loss. DO NOT operate at high volume levels or at a level that is uncomfortable. If you experience any discomfort or ringing in the ears or suspect hearing loss, you should consult an audiologist.*

*Thank you for your purchase of an Eden bass guitar product. This unit has been designed and constructed to give you years of trouble-free service.*

**Please take the time to review this manual  
and to send in your warranty registration card.**

## FRONT PANEL FEATURES

### Channel 1:

**Input Jack** – Designed to accept a standard 1/4-inch mono phone plug. For best results use a high quality shielded cable to connect your instrument to the amplifier. The input is buffered and will handle standard passive, high level active, and piezo input signals.

**Gain Control** – Regulates the first gain stage of the preamplifier and controls the amount of signal available to the system.

**Input Pad** – Depressing this switch engages a –10dB pad. This feature is useful for basses that have a very hot signal level.

**Set Level Indicator** – This light helps the user set the appropriate amount of gain. When set properly, the indicator should light on your loudest/lowest notes. We'll go over this in more detail later in the manual.

**Enhance Control** – Called the “Magic Knob” by some, this complex control simultaneously boosts the very low bass, upper middle, and high frequencies while putting a dip in the lower middle frequencies. It is flat when set to its minimum level (fully counterclockwise).

### Tone Control Section

These controls allow you to boost or cut the tone at the desired frequency. The spacing allows the controls to interact smoothly and musically. From left to right, the controls and switches are:

**Bass** – This traditional shelving tone control provides 15 dB of boost or cut at approx. 35Hz. The control is flat in the 12:00 position.

**Midrange** – This is a bandpass type control centered at approx. 550Hz.

**Treble** – This traditional shelving tone control provides 15 dB of boost or cut at approx. 11KHz. The control is flat in the 12:00 position.

### Channel Selector:

Located between the two channels, the Channel Selector Switch enables you to go from one channel to the other. You can use this feature in two ways:

1. To choose between instruments. Plug an instrument into each of the channels and use the switch to select the proper channel of operation. This is a great feature for those who double.
2. To use a single instrument with both channels. Plug your instrument into the Input Jack for Channel 2 (Master Channel) and use the Channel Selector Switch to instantly switch between two different tone settings. This is a great way to have instant access to a second tone/volume setting, e.g., for solos or slapping.

We designed the preamp with Freedom of Choice in mind. It's up to you which way works best for you. (You're welcome.)

## **Channel 2:**

**Input Jack** – Designed to accept a standard 1/4-inch mono phone plug. For best results use a high quality shielded cable to connect your instrument to the amplifier. The input is buffered and will handle standard passive, high level active, and piezo input signals.

**Gain Control** – Regulates the first gain stage of the preamplifier and controls the amount of signal available to the system.

**Input Pad** – Depressing this switch engages a –10dB pad. This feature is useful for basses that have a very hot signal level.

**Set Level Indicator** – This light helps the user set the appropriate amount of gain. When set properly, the indicator should light on your loudest/lowest notes. We'll go over this in more detail later in the manual.

**Enhance Control** – Called the “Magic Knob” by some, this complex control simultaneously boosts the very low bass, upper middle, and high frequencies while putting a dip in the lower middle frequencies. It is flat when set to its minimum level (fully counterclockwise).

*(Does this all sound familiar? Well, it should! You just read all this under Channel 1. If it doesn't, please pay closer attention. Anyway...)*

**EQ Clip Light** – indicates clipping in the EQ section. Clipping is a **Very Bad Thing** and should be avoided at all times. We'll tell you how to avoid this later in the manual.

**Compressor Defeat Switch** – To defeat the Auto-Compression circuit, depress this switch.

**Compressor Indicator Light** – Indicates compression is taking place.

### **Tone Control Section**

Here's where things are a bit different than Channel 1. This channel uses our original 5-way semi-parametric EQ. These controls offer more tone shaping options. The spacing allows the controls to interact smoothly and musically. From left to right, the controls and switches are:

**Bass** – This traditional shelving tone control provides 15 dB of boost or cut at approx. 35Hz. The control is flat in the 12:00 position.

### **Semi-Parametric Controls**

There are three sets of semi-parametric controls. Each set has a Frequency control (top knob) and a Level control (bottom knob). The Level controls provide 15 dB of cut or boost. The control is FLAT in the 12:00 position. From left to right, the Frequency controls have the following ranges:

30-300Hz

200Hz-2Khz

1.2-12Khz

**Treble** – This traditional shelving tone control provides 15 dB of boost or cut at approx. 11KHz. The control is flat in the 12:00 position.

**Master Level Control** – Adjusts overall system output and stage loudness.

**Headphone Jack** – Accepts a standard 1/4-inch stereo or mono headphone plug. It can also be used as a Master Output send to slave another amplifier.

**Output Limit Indicator** – Lights to indicate activity of the power amplifier limiting circuit, which protects the speaker system from severe distortion. The LED indicate that the amplifiers have reached their maximum output level.

**DC Indicator** – When lit, shows that the low voltage power supplies are operating.

**Mains On/Off Switch** – This switch turns the system power ON or OFF. The switch illuminates to indicate the presence of AC power present in the chassis. This switch is prior to the fuse. The light in the switch may flicker depending on local voltage conditions. This is normal and nothing to be concerned about.

**NOTE: The Mains Switch will illuminate even if the fuse is blown. However, the DC Indicators will not illuminate if the fuse is blown.**

## **REAR PANEL FEATURES**

### **Amplifier Power Rating:**

RMS output per channel:

300 Watts @ 8 Ohms

550 Watts @ 4 Ohms

750 Watts @ 2 Ohms

All modes of operation have +3dB of headroom. This means that the peak power is twice that of RMS.

**Combination Power Cord Jack and Fuse Holder** – The removable power cord is attached here. To access the fuse holder, pull the holder out of the top of the power receptacle. Your unit was shipped with a spare fuse inserted in the fuse carrier. **USE ONLY THE SAME SIZE AND TYPE FOR REPLACEMENT. Using a fuse with a different rating than specified is a VERY BAD THING and can cause damage to your amplifier.** All models are factory configured for 100/120 or 230/240, depending on country in which sold, and must be adapted by a service tech for any voltage change.

### **Fuse Requirements:**

USA @ 120 Volts /60 HZ – 8 Amps, 5 x 20 mm GMC/T/slow blow

Europe @ 240 Volts/50 Hz - 4 Amps, 5 x 20 mm GMC/T/slow blow

**IMPORTANT NOTE: Always use slow blow or time delay type fuses. Do not use fast blow fuses.**

**VERY IMPORTANT NOTE: In order to adapt your amplifier to operate properly at a different voltage, it will require minor modifications. These modifications should be made by a QUALIFIED technician. Contact your local distributor for further information.**

**Recording Out (D.I.)** – This fully balanced XLR output allows you to send a pre- or post-EQ signal to a recording or sound reinforcement mixing console. We use Pin 2 hot configuration. Adjusting the Master Volume control will not affect this send. This output is designed to use with phantom powered systems. However, it never hurts to turn off the phantom power at the board, if possible.

**D.I. Level** – Controls the level being sent from the XLR balanced output jack. We suggest setting the control at approximately 12 o'clock initially. If the signal to the board is too hot, it's better to engage the Input Pad on your channel of the board than to turn it down here, if at all possible. In general, it's better (in terms of signal-to-noise ratio and dynamic presentation) to send as hot a signal as possible to the board. However, you can adjust the signal level, if necessary, so make sure your soundperson or recording engineer is aware of this capability.

**Ground Lift Switch** – This switch lifts the ground within the balanced output system to allow you to eliminate excessive noise/ground loops when connected to external systems.

**Speaker Output** – These consist of three 1/4-inch jacks. The jacks are wired in parallel. The total speaker load impedance should not go below 2 ohms.

**Tuner Out Jack** – This standard 1/4-inch jack is designed to provide a pre-gain signal for connection to a tuner. It can also be used to provide pre-tone signal to other devices such as a direct box or console. The signal is enough to provide adequate signal to virtually every tuner on the market.

**Aux. Inputs (L and R)** - These standard 1/4-inch input jacks are designed to accept the signal from an external source such as a CD or cassette player, drum machine, synth. module, etc. The signal is summed (added in) after the tone controls but before the Master Volume control, and is sent to all outputs, including the DI.

**Mono Pre-EQ Effects Sends>Returns** – These standard 1/4-inch jacks allow you to send and receive your signal to and from external devices. Each channel has its own Effects Loop. These are positioned post (behind) the compressor and the Enhance control, and before the tone section. These loops are at line level; do not use instrument level effects in this loop as they tend to be overloaded by the higher signal level which can cause distortion.

**Cooling System** – Your amplifier features a thermostatically controlled fan, which will switch on when the internal temperature reaches 130 degrees F. In low volume situations (into 8 Ohm loads) the fan may not come on at all.

The cooling system also features a high temperature thermal safety system, which will activate an AGC (Automatic Gain Control) circuit if the operating temperature goes above 200 degrees F. This circuit will automatically turn down the output of the system in the event of overheating. It will automatically restore the system to full power as soon as the unit cools down to a safe operating temperature.

**NOTE:** the D.I. will continue to operate normally even when the amplifier is in thermal safety mode. Only the stage sound will be lost.

**IMPORTANT NOTE: Excessive heat is a Very Bad Thing and can result in severe damage to your amplifier. DO NOT bypass or disconnect any part of your thermal safety system. Doing so will immediately void your warranty!**

## **OPERATING INSTRUCTIONS**

**Mechanical and Thermal Issues** – During operation, your amplifier should always be placed away from sources of moisture or heat. Care should be taken not to obstruct the ventilation holes on the bottom and sides of the unit. In the event of thermal shutdown, you should eliminate the cause of the thermal problem (poor ventilation, speaker loads lower than 2 ohms) immediately. The supplied rack ears can be used to install your amplifier in a conventional equipment rack for protection during transportation.

**Electrical Connection** – The DC210XLT requires at least 10 Amps of correctly wired alternating current for proper operation. Providing less than 10 Amps of power may result in poor amplifier performance, so it's probably not a good idea to plug all of your band's gear into a single wall outlet.

**Connections** – All instrument-level input connections (everything but the speakers) should be made with high quality shielded cables. The use of speaker cables for input connections will result in excess noise. Speaker connections should be made with high quality 16 gauge or heavier unshielded speaker cables. We recommend 10 or 12 gauge cables. **The use of shielded line or instrument cables for speaker connections can damage your amplifier.** The speaker cable should be as short as possible.

## INITIAL SET UP

As bassists, each of us has in our head a concept of our perfect sound. Eden amplifiers are designed to help you easily achieve the sound you hear inside you. However, it's a multi-step process as explained below.

In order to ensure the ultimate in tone, it's important to follow the procedure outlined below. Don't skip steps; don't jump around. Yes, this may take a minute or two, but the work is well worth it. Once they've done it a few times, most users can do it time and again in about a minute.

**IMPORTANT NOTE:** Before you plug in your unit for the first time, please do the following things. First, turn the power switch to the OFF position. Check the back of your unit for the correct voltage notation for your country of operation.

Once you've ensured correct voltage, set the Master Volume control to minimum (fully counter-clockwise). Set the tone controls to the center position (12:00 or 0). Turn the Enhance control to the minimum position. Set the Input Gain control to the minimum (fully counter-clockwise). Set the Compressor to the OFF position (push the switch IN). This will set your amplifier up flat and with the Compressor disengaged. Next, plug in the power cord to the AC inlet on the back of the unit. Use only a safe grounded receptacle for proper operation at the correct voltage for your country. Double check to make certain your amplifier is set for the correct voltage in your country. Double check that all connections and switches are correct for your chosen mode of operation.

**Turn On** – Once you've completed the steps above, you can plug in your bass and turn on the unit (plug it in first, ok?) and let's get started. We recommend turning your system on with the Master Volume control set to its minimum position. This will prevent any unexpected signal from being sent to your speakers.

**IMPORTANT NOTE:** If you want to use a single instrument to switch between the two channels, make sure you connect your instrument to Channel 2, which is the Master Channel for this mode of operation. If you plug into Channel 1 and attempt to switch to Channel 2, it is possible you'll hear something, but it won't sound very good.

**Setting Your Level** – Remember, begin with the Input Gain, Enhance, Compressor and Master Volume completely OFF – fully counter-clockwise. All EQ should be set flat, that is, at 12:00 – straight up.

While playing your lowest note (or loudest), slowly turn the Input Gain up until the Set Level light begins to blink with regularity. If you can't go past 8 or 9 o'clock, you may engage the Gain Switch to better match the gain of your instrument to the amplifier.

If you have disengaged the Compressor as we suggested, the Set Level light will barely blink on your loudest notes. By the way, this is David's favorite way to set level, even if you intend to use compression.

Once you have properly set your Input Gain, turn the Master Volume up to a comfortable listening level and proceed with the rest of the setup process.

**Setting the Compressor** - If you want to use compression, engage it now by turning the Compressor Defeat switch OFF. The compressor light will now blink when your gain goes above the compression threshold. This will generally show up more on the lower notes, or when you employ Slapping. (A properly compressed Slap sound is very cool, indeed.) If you want more compression, increase the Input Gain a little at a time, until you achieve the amount of compression you desire.

## **SETTING YOUR EQ**

The frequencies that you'll need to boost or cut are dependent upon your instrument, playing style, speaker cabinets, and venue. Extreme settings of boost or cut are unlikely to be necessary or helpful. We are frequently asked to provide suggested settings for various styles of play. We have discovered though, that most of our endorsers tend to set their EQ generally flat, using varying amounts of the Enhance Control to achieve their sound. In fact, a number of our recording artists tell us that their standard recording set-up is to have the Enhance set at approximately 9 or 10 O'clock and the tone controls set flat.

We encourage you to experiment with different settings to obtain the sound you desire. We have included some EQ panel diagrams at the back of this manual to help you record your settings.

**Enhance** – Once you’ve set your gain, you can move on to setting your EQ, beginning with the Enhance control, or Magic Knob, as some call it. The Enhance circuitry adds very low bass, upper mids and highs while scooping out a bit of low middle. The more Enhance effect you dial in, the greater the boost (and cut). As with all of our EQ controls, a little goes a long way.

Slowly bring the Enhance control up while playing. If you turn it up close to 12:00 on the dial and still don’t have your sound, stop there. Return the Enhance to OFF or leave it at no more than 12:00 and work with the EQ section.

**Using the EQ Controls** – Before you begin to twiddle knobs, let’s talk about a few things. Excessive boosting of one or more EQ frequencies may cause an overload in the EQ section. If this happens, the EQ Clip light will engage. This is a **Very Bad Thing** and needs to be corrected immediately. If EQ clipping occurs, you can either decrease the boost or decrease the Input Gain. Remember, too, that our EQ controls are active, and are meant to turn both ways – not just UP! This means that you can enhance a certain frequency spectrum either by boosting that frequency or by cutting the adjacent frequencies. This latter method has the advantage of maximizing potential headroom.

If possible, step well forward of your rig to get a better idea of how you will sound in the room. You may be surprised at how different you sound once you step away from the speakers.

**NOTE:** Many players rely on the Enhance Control (and perhaps a little Midrange Massage) to get their sound. This method leaves the Bass and Treble controls available to dial in to a particularly difficult room. Just something to keep in mind, ok?

**Setting Bass and Treble** – OK, now it’s time to set the EQ, beginning with the Bass and Treble controls. These controls cover a fairly broad frequency spectrum and a little goes a long way. Adjust these controls up or down as needed. We suggest playing a few notes in various areas of the neck so you can hear what your adjustments have done across the fretboard.

**Using the Semi-Parametric EQ Controls** – Adjusting the Semi-Parametric controls allows you to focus in on particular frequencies to achieve your desired tone. We suggest you spend some time experimenting with these controls to learn more about how they can affect your sound. Here’s an easy way to do that:

Beginning with all controls FLAT, turn the first (left) frequency control fully counterclockwise. Turn the corresponding Level control to approximately 9:00. Now, while playing, rotate the frequency control to the right a little at a time. You should be able to easily hear the frequencies this first set of controls affects.

Now, cut the Level control to approximately 3:00 and do the same thing.

Repeat this process with the two remaining control sets. By the way, this process is a lot easier if you have a friend do the knob twiddling while you play.

Here are a couple of tips to help you dial in your desired tone:

For a great fretless tone, dial in a little extra at approximately 550Hz.

For extra grind for Rock and other aggressive music, add a little at 1-1.2KHz or 2-2.2KHz – or both! Remember, though, that a little goes a long way. Don't over boost.

**NOTE:** Remember that the tone you get when playing alone may not cut through as well as you'd like when playing with others. You may need to adjust the tone controls to achieve the same (apparent) tone, especially in the mids and high end.

## **A FEW TECHNICAL THINGS TO REMEMBER**

**Clipping = Bad** – Keep an eye on the EQ Clip light. If it blinks, either reduce Input Gain or cut back on one or more EQ ranges. As we said earlier, Clipping in the preamp section is a **Very Bad Thing** and is to be avoided at all times. If you find yourself running out of amplifier headroom, cut a little in the lower frequencies, which require the most power from your amp. You'll know this is happening if you see the Limit light flashing. As long as the light is just blinking, you're fine. But, if it's on more than it's off, you might want to back off a bit.

**Frequency Oddities** – Two areas are a frequent source of frustration for bassists trying to achieve their sound: frequency masking and frequency enhancement. Frequency masking occurs when other instruments (particularly cymbals and electric guitars) obscure the important upper harmonic content of your sound.

As a result of this masking, you find that the EQ settings that were so perfect at home lack definition in a live setting. On the other hand, the stage settings that worked so well sound harsh and/or thin in the absence of other instruments.

Frequency enhancement results from cabinet placement and room acoustics. A cabinet placed on the floor will have the lower frequencies boosted by about 3 db. Placement against a wall adds another 3 db. A corner adds 3 db more. Consequently you may find a surprising boominess to your sound. Certain qualities in the room itself can also enhance the lower frequencies, further contributing to this problem. Frequently this effect is more noticeable in the audience than it is on stage. Compensating for it may result in a stage sound that may seem a little thin. However the sound is actually quite full out in front.

**NOTE;** Remember, you can't equalize out major physical room anomalies. If things sound really weird where you are, try moving your rig a few feet and see if that helps. This may be particularly helpful on saggy stages that bounce like a drum head. (*The propellerhead term for this is "diaphragmatic."* So says David. – LB)

## **YOU'RE DONE. GO PLAY.**

There you have it: a quick and easy process to help you get the perfect tone from your Eden amplifier. As previously mentioned, it may take a few extra minutes the first few times you go through this, especially if you take the time to experiment with all the knobs and switches, which we highly recommend.

We are confident that the time you spend getting to know your new friend is an important investment, one that will pay off immeasurably in **Great Bass Tone**. And, after all, that's why you bought an Eden, right?

## **MORE ON SPEAKERS**

**Break-in Period** – We recommend that you use your DC210XLT combo at low to moderate volume levels for approximately ten hours before using it in a high volume situation. This will allow the suspension components to "seat" themselves and the speaker to break in. This is very similar in concept to breaking in the engine of a new car.

It will actually take about 24 to 50 hours of total playing time to fully break in your speaker system. If desired, you can plug a CD player into your amplifier and play a CD through your enclosure to accomplish this break-in.

**Connections With Additional Cabinets** – It is important to keep two issues in mind when using your DC210XLT combo with other speaker cabinets: phase relationships and impedance. Proper parallel connections require the positive and negative speaker terminals to maintain their relationships throughout the system. This means that the positive connection (tip on    in. plugs) on one cabinet must connect to the positive connection on additional cabinets. The negative connections should be made in a similar manner. Unless you have defective cables,    in. connections make incorrect connections highly unlikely.

Impedance is a measure of the load your speaker system places on your amplifier. Too great a load (indicated by a lower impedance figure) can damage your amplifier. Too small a load (indicated by a higher impedance figure) can fail to draw adequate power from your amplifier. Please consult your amplifier manufacturer's literature for impedance recommendations. We hope this means you'll be consulting another one of our manuals, by the way. If this is not the case, may we humbly suggest you trade up to a better amplifier?

When you connect speakers in parallel, the load increases as shown below:

Parallel speaker configurations	Total system impedance
Two 8 ohm cabinets	4 ohms
One 8 ohm cabinet and one 4 ohm cabinet	2.6 ohms
Two 4 ohm cabinets	2 ohms
Three 8 ohm cabinets	2.6 ohms
Two 8 ohm cabinets and one 4 ohm cabinet	2 ohms
One 8 ohm cabinet and two 4 ohm cabinets	1.6 ohms – <b>NOT Recommended!</b>

**IMPORTANT NOTE:** The impedance of the internal speakers is 8 Ohms. Remember to factor this in when determining total impedance with additional cabinets.

**Suggested Speaker Systems** – Your extension speaker system(s) should be chosen to accommodate the characteristics of your amplifier and your predominant application. If you will generally be using a single extension cabinet, it should both be an 8 Ohm model so the combined impedance will be 4 ohms.

If you are uncertain about your future needs, always go with the 8 Ohm speaker option so that you can add another speaker later if you need to. In general, adding more speakers will give you a greater volume increase than adding a few more watts.

We have designed our amplifiers to operate safely at 2 Ohms only because everyone else is doing it and some users expect it. However, we much prefer operating at 8 or 4 Ohms because of the markedly improved quality of tone and dynamic response. But if you really want to, you can operate your Metro combo at 2 Ohms without worry.

Two speaker systems we strongly recommend are an 8 Ohm D-210XLT and a 4 Ohm D-410XLT. With either cabinet – or both! – connected to your DC210XLT, each individual driver will receive approximately the same amount of power. This results in very smooth and satisfying sound. By adding both cabinets (or, alternatively, three D-210XLTs) you can create a rig that is extremely flexible; you can add as many speakers as needed for a particular application.

**Power Handling** – Your speaker system can be damaged by too much or too little amplifier power. While the amount of amplifier power reflects the potential for damage, how that power is used (your playing style) is the critical variable. Too small an amplifier, when pushed to its limit too often, can generate excessive clipping. This can generate a signal with enough extra high frequency distortion to eventually overheat and burn up a voice coil. Too large an amplifier, when pushed near its limit, can push the speaker beyond its physical limits. Your playing style determines how much headroom (reserve amplifier power needed to handle short bursts of sound) you will need.

Slap style playing is particularly demanding, as short bursts of low frequency information require a great deal of power to be produced accurately without distortion. You should choose an amplifier that delivers adequate power for your playing style without frequent clipping and without exceeding the cabinet's power handling maximum during normal usage. It is OK to have extra power for added headroom. Just be careful to use it for that purpose.

Also, keep in mind that simply adding amplifier power will not necessarily increase your volume significantly. The addition of more speakers will usually have more impact on your overall volume level and improve your overall presence and tone.

**Cabinet Placement** – The placement of your cabinet can also have an impact on the amount of bass it produces. Placing the unit on the floor increases the amount of Bass you get by an additional +3dB . With each additional wall surface placement you get another 3 dB increase. This is due to the reinforcement of bass frequencies by the adjacent surfaces.

The absence of reinforcing surfaces is the reason why outside settings are so problematic for bass amplification. A system that may be perfectly adequate in a fairly large club can be rather disappointing on an outdoor stage. If you have plans to perform in such a setting and are not confident that the P.A. system can provide you with sufficient reinforcement (both out front and via monitors), you should consider using additional equipment to support your own sound.

## **OTHER CONSIDERATIONS**

**Headphone Jack as a Line Driver** – On some occasions (such as high-volume or outdoor situations) it may be desirable to use the DC210XLT along with an additional power amplifier and added cabinets. A standard shielded instrument cable may be used to connect from the headphone jack of the unit to an unbalanced input of a standard power amplifier. This will provide a signal that is post-EQ and after the Master Volume control, allowing the entire system to be controlled from the DC210XLT. This way, you only have to adjust one set of knobs. This is a **Really Neat Thing**, huh?

**Using the DC210XLT Without Speakers** -This amplifier is designed to be used safely with headphones only, without the loud speaker plugged in. No harm will result from using the amplifier in this fashion. This allows the use of the unit for practice with headphones and as a preamplifier with other amplifiers. Neighbors and room mates really love this, which qualifies it as another **Really Neat Thing**.

## **MAINTENANCE**

Your Eden amplifier has been designed to require minimal routine maintenance. Attention to the following areas will ensure optimum performance of your amplifier. We're serious. Don't blow this off, OK?

**Contact Point Cleaning** – One of the weakest links in most bass amplification systems are the solderless connection points where instruments, speaker cabinets, effects, and other devices are connected to the amplifier. (The most vulnerable of these types of connection is the jack on your instrument). In addition to contamination from airborne pollutants, these points are frequently assaulted by connectors that have picked up debris from dirty stages, cases, etc.

This contamination can result in poor contact as well as poor tone, and we all know that bad tone is a **Very Bad Thing**. These points should be cleaned regularly with a cotton swab soaked in denatured alcohol or a commercially available de-oxidant. Frequent cleaning of the plugs on your cords is also recommended.

**Dust Removal** – You should periodically inspect the ventilation openings on the top and sides of the unit to ensure that they have not become blocked by accumulated dust. Vacuum the openings to remove any dust buildup. Dust bunnies are definitely not cool.

**The Magic Smoke** – Few people realize just how much magic goes into creating Great Bass Tone. It isn't something you normally need worry about. Just have fun and leave all that to us. However – *and this is very important* – if you ever release the Magic Smoke from your amplifier this is indeed a **Very Bad Thing**, perhaps the worst thing you can do. If you see any smoke (Magic or otherwise) coming out of your amplifier, immediately turn it off and seek the services of a qualified magician...uhm, we mean...technician. **DO NOT continue to use the amplifier in this condition.**

**Learn More** – If you'd like to learn more about your amplifier (or about our company and its activities), we invite you to visit our website – [www.eden-electronics.com](http://www.eden-electronics.com). There you'll find articles to help you better understand our products and the technical stuff some people find so interesting. You'll also find our FAQ (Frequently Asked Questions) file, which is updated regularly.

While you're there, check out our on-line forum. There you can meet hundreds of other Edenites who'll be glad to help you with any questions you may have about our gear. Not to brag too much, but we think our forum is a **Really Neat Thing**, filled with **Really Neat People**. We're pretty sure you'll think so, too.

**Service** – In the event of amplifier malfunction, or questions about your unit's operating features that aren't answered in this manual or on our website, you should contact your Dealer. Once you and your dealer have determined it's definitely a malfunction (and not an operator error) you must call our Customer Service Department and **obtain a Return Merchandise Authorization (RMA)**. We WILL NOT accept any gear sent without an RMA, so save the time and money by calling first, ok?

# My Favorite Settings



## Setting 1

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## Setting 2

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## Setting 3

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## Setting 4

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## Setting 5

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